CLAIMS AMENDMENTS

CLAIMS

1.   (Original) A method for allowing a Mobile IPv4 Mobile Node to communicate from an IPv6 visited network, and across IPv6 networks, back to a Mobile IPv4 Home Agent, in a Mobile IPv4 Network, comprising:

    -a Mobile Node supporting Mobile IPv4 registration procedures including IPv6 addressing details to support MN – HA communication;

    -a Home Agent supporting connectivity to both IPv4 and IPv6 networks to facilitate remote access;

    -tunneling of IPv4 traffic over IPv6 networks from the Mobile Node;

    -tunneling of Mobile IPv4 traffic over IPv6 networks from the Home Agent.

2.   (Currently Amended) A~~The~~ method ~~according to~~of ~~c~~Claim 1, wherein the Mobile Node acquires an IPv6 address in the visited network.

3.   (Currently Amended) A~~The~~ method ~~according to~~of ~~c~~Claim 2 wherein the Mobile Node sends a MIPv4 Registration Request over IPv6 using the acquired IPv6 address as source address, and the Home Agent IPv6 address as destination address.

4.   (Currently Amended) A~~The~~ method ~~according to~~of ~~c~~Claim 2, wherein the Mobile Node includes the acquired IPv6 address as an IPv6 care-of address extension in the Mobile IPv4 Registration Request.

5.   (Currently Amended) A~~The~~ method ~~according to~~of ~~c~~Claim 1, wherein the Home Agent extracts the IPv6 care-of address from the Registration Request extension and uses it as the tunnel endpoint for the IPv4 in IPv6 tunnel back to the Mobile Node.

6. (Currently Amended) ~~A~~The method ~~according to~~of ~~c~~Claim 1, wherein the Mobile Node tunnels IPv4 packets in IPv6 headers, destined for the Home Agent.

7. (Currently Amended) ~~A~~The method ~~according to~~of ~~c~~Claim 1, wherein the Mobile Node de-capsulates IPv6 tunneled IPv4 packets from the Home Agent.

8. (Currently Amended) ~~A~~The method ~~according to~~of ~~c~~Claim 1, wherein the Home Agent accepts Mobile IPv4 Registration Requests arriving on an IPv6 network.

9. (Currently Amended) ~~A~~The method ~~according to~~of ~~c~~Claim 1, wherein the Home Agent tunnels IPv4 packets in IPv6 headers, destined for the Mobile Node.

10. (Currently Amended) ~~A~~The method ~~according to~~of ~~c~~Claim 1, wherein the Home Agent de-capsulates IPv6 tunneled IPv4 packets from the Mobile Node.

11. (Currently Amended) ~~A~~The method ~~according to~~of ~~c~~Claim 1, wherein the Home Agent employs UDP tunneling from the HA to the MN in accordance with RFC 3519.